

-----Original Message-----

From: Ernesto Meruelo [<mailto:e.meruelo@gmail.com>]  
Sent: Monday, October 24, 2011 12:38 PM  
To: Julius Genachowski  
Subject: Comments to the Chairman

Ernesto Meruelo (e.meruelo@gmail.com) writes:

Mr. Genachowski,

My name is Ernesto Meruelo and I am writing to regarding the implementation of the Lightsquared network. This situation deeply concerns me due to the hazards it poses to the GPS network.

Lightsquared is a broadband entrepreneur that acquired 40,000 Sprint transmission towers to set up a 4G network. Unfortunately, the frequency spectrum utilized directly interferes with the GPS signal. GPS relies on units receiving satellite signals for an accurate location fix. GPS signals are weak in strength by the time they reach the receivers. These receivers have little filtering on their antennas to minimize signal loss. Lightsquared's network transmits in the frequency band immediately adjacent to the GPS spectrum. The problem this creates is that Lightsquared's land based towers are transmitting at approximately 1 billion times more powerful than the adjacent satellite based GPS signals. This has been proven repeatedly in tests to interfere and disrupt GPS receivers. Imagine trying to listen to a whisper in one ear while someone is yelling through a megaphone in your other ear. That is essentially what is occurring with GPS units while Lightsquared is operational.

Lightsquared's response to these issues has been to lay the blame on the GPS industry. The assertion they hold is that the industry at large and all GPS users are responsible for providing their own fix to the problem. They claim that a \$6 filter provided by one of their investors will sufficiently address the interference issue. This filter has yet to show any promise of delivering on their claim. This situation is analogous to having a neighbor move in next door and play loud music day & night. Their solution to your complaints is to sell you some earplugs. As absurd as this sounds, this is exactly what is occurring with our national GPS infrastructure. Numerous agencies, industries, and individuals are absolutely dependent on reliable GPS service.

I am very concerned that a group of politically connected entrepreneurs are poised to wreak havoc on such a vital and essential national resource that at best case; will cost the government, industry, consumers, and taxpayers billions of dollars. They are willing to do all of this so some venture capitalists will get a return on their investment.

This also poses a very real threat to public safety, particularly the flying public. GPS is heavily utilized for precision instrument approaches into airports across our nation. These approaches keep aircraft clear of terrain & obstacles while flying in inclement weather. The FAA's Nextgen air traffic control system is almost

entirely dependent on satellite signals. Law enforcement, fire & rescue, the agriculture industry, surveying & construction, and the entire military are just a few of the entities impacted by Lightsquared.

I have a personal concern in this since I am an active pilot and also currently serving with 18 years in the Navy.

Mr. Genachowski I urge you to recognize the negative impact that Lightsquared could impose on the nation at large and that allowing this process to continue would be economically catastrophic and threaten public safety.

Thank you,

Ernesto Meruelo

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